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# CALCULATIONS AND FACTS

RELATIVE TO

## LOTTERY INSURANCES.

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CALCULATIONS

AND

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OF THE

THE BURNING OF

RELATIVE TO

THE

PARTICULAR

LOTTERY

LONDON

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CALCULATIONS. *K*

AND

F A C T S

RELATIVE TO

LOTTERY INSURANCES,

AND DEMONSTRATIVE OF

THE STRIKING ADVANTAGES

OF PURSUING

PARTICULAR PLANS.

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1793

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## ADVERTISEMENT.

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**W**HEN PHILIP THICKNESSE published his Treatise on Cyphers, or secret modes of writing, he put a very high price on a very few pages, not thinking his work calculated for the many; and, perhaps, it was better for *all*, that the many should not peruse it: he seems to hint so much. I have other authorities besides his for demanding a large price for a very small work, of which a still smaller impression has been struck off: the choice of purchasing it lies with the PUBLIC, who will be fairly advertised both of its price and bulk. With respect to my motives, I deem it neither necessary nor expedient to be

be explicit ; but, presuming that I shall have some Readers, it will not be amiss for them to know, that I could have led them on through five or six hundred pages of calculations, demonstrations, arguments, and reasonings, on the subject of the following pages (I shall not say, sheets), without affording them more information, and certainly with more perplexity to themselves as well as labour to me, than I now present to them.

Shall I, on this head, be permitted to tell them a story, short and apposite ? A woman smarting under the torture of a severe tooth-ach, applied to a Dentist, who, with infinite dexterity and address, removed in an instant the cause of her sufferings ; On her demanding what was to pay, she expressed an extreme surprise that the

the sum should be so much as a *shilling* ; urging, that *Mr. Somebody* in the neighbourhood had lugged her twenty times round his shop, and applied his forceps and punch at least as often to her jaw, without demanding a larger recompense, notwithstanding he had devoted at least *half an hour* to the task !

the man should be so much as a bit-  
 ing; owing that Mr. Sambo in the  
 neighbourhood had lodged her twenty  
 times round his shop, and applied  
 his forceps and punch at least as  
 often to her jaw, without demanding  
 a larger recompense, notwithstanding  
 ing he had devoted at least half an  
 hour to the task!

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## CALCULATIONS AND FACTS

RELATIVE TO

## LOTTERY INSURANCES.

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**I**F the arrangements for the Drawing of the Lottery could be so made, as that the Numbers, which in their natural order follow each other in succession, should be completely disunited; or, in other words, if the mode of putting these Numbers into the Wheel, and the rotatory motion of the Wheel itself, could so disconnect all of them, as to render the period of

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the drawing of each entirely fortuitous: If, I say, with *paper-billets*, this could possibly be the case, still many curious results would present themselves to the calculator, which, however, could not be so well reasoned upon, explained, and demonstrated, as those that are to embrace the subject of the following Calculations and Facts.

To the end that the chances should be in every case alike, it would be necessary that the chance, for instance, of Numbers 1 and 2 lying together, or near to each other, in the Wheel, should not be greater than that of Numbers 1 and 40,000, (supposing the latter to be the greatest Number.) But when it is considered that the Numbers are cut in slips, each belonging to a particular thousand, into the Wheel, and that the billets, when thus cut in, press each other into a mass, reciprocally binding each other with their edges, it is impossible, in spite of every motion in the Wheel to agitate and disconnect them, that the kind of order in which they were first placed can  
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be entirely destroyed. It is the lot of those first cut in to embrace the circular side of the Wheel ; and notwithstanding they may, by its motions, be carried round, and that repeatedly, to the extent of its whole sweep, still it is in a manner morally impossible for them to make their way through the body of the billets pressing upon them at the early part of the Drawing. It would appear to be from this cause, that at certain periods of the Drawing, some of the thousands are so much under, and some others so much over-drawn.

From an attentive observation of the progress of several Lotteries, three great leading facts have resulted.

That a thousand which, at a certain period of the Drawing—the middle, for instance—is considerably under-drawn, and which on that account I shall call a strong thousand, so *pulls itself up* in the sequel, as to place itself on a footing with the other thousands, upon an average estimation, several days before the Drawing of the Lottery is completed.

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That,

That, also at a certain period of the Drawing, a considerable chasm or blank space of undrawn Tickets will, in certain parts of the Office Book, or of Lottery Tables purposely made and filled up daily, be discoverable : and that this string of undrawn Numbers will suddenly *pull itself up* in such a way, as that no such chasm or blank space in the Books or Tables shall be discoverable several days before the Drawing of the Lottery is completed.

And lastly, That, generally speaking, Prizes fall two, three or more together, insomuch that in the Books or Tables, when the Lottery is completed, a Prize with a Blank above and another below it, is seldom, comparatively speaking, to be found.

<sup>70</sup>In support of the first fact, which a laborious and attentive observation on Lotteries has established, I shall adduce the following calculations, first laying down, for the sake of perspicuity, these premises :—That the Lottery, I suppose, consists of 40,000 Tickets, of which

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1,000 are to be drawn daily ; that the stake on any Number on any day is 100 pounds ; and that the Underwriter (the Keeper of the Insurance Office) and the Insurer are at an equal issue. But as the former claims a certain premium for the stakes he is to support, it will be necessary to compare that premium with the advantages to the Insurer my calculations are to demonstrate and establish : I shall therefore observe, that at the reputable Offices, it is from 4 one-half to 8 per cent. ; at the others (to which, of course, I would not recommend my Readers to resort), from 10 to 17 per cent.

In a Lottery of 40,000 Tickets, to be drawn in 40 days, 25 Numbers in each thousand are on an average to be drawn daily. Let us suppose the Drawing of this Lottery commenced, and that on the first day 20 Numbers only, in a thousand on a Number of which an adventurer has staked 100 pounds, are drawn. It is clear, whether his Number be drawn or undrawn, that he has had the chance of 80 pounds only for his hundred, no more.

more than the four-fifths of the proportion of the Numbers in that thousand having been drawn, upon which the Underwriter consented to return (his premium always excepted) to the Insurer, 40 times his stake, on his Number turning up.

We now see the thousand on which this stake was made to be stronger, on an average calculation, than the other thousands. It is true, that in this early stage of the Drawing, the difference in its favour is but small; but as it is to hold back in the same ratio till the commencement of the twenty-first day, we shall perceive at that period a very material difference indeed.

On the second and subsequent days, till the middle of the Drawing, the unsuccessful Insurer still perseveres daily in his stake of 100 pounds. As, in the thousand in which his stake is engaged, there ought on the second day to be more than the proportion of 25 Numbers drawn, to atone for the first day's deficiency, he loses on that day *more than*  
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the 20 per cent. (the amount of his loss on the preceding one) in his chance, supposing, as I still do, 20 Numbers only to be drawn in that thousand.

And, this loss progressively increasing, at the close of the twentieth day's Drawing, 20 Numbers only in the thousand having turned up each day, and his number still remaining in the Wheel, the loss on that last (the twentieth day) will be found by the following calculation to be nearly 30 per cent.

For at this period there were in the Wheel, in that thousand, instead of the average number of 500 Tickets, 595 Tickets, of which 28 and one-third ought to have been drawn on the above day; and if the turning up of that proportion (28 and one-third) would have given to the Insurer the chance of 100 pounds for the hundred he staked, it must follow, by a simple rule-of-three calculation, that the deficiency in the drawing of the thousand on that day gave him merely a chance of the return of 70*l.* 11*s.* 3*d.*

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I have supposed my Insurer to have been thus busied, merely for the sake of contrasting these circumstances of the Wheel, as far as a particular thousand is regarded, with those which are to follow; since no prudent person will insure at such early stages of the Drawing.

And here let me observe, that I have chosen the middle of the Drawing for the period when *the strong thousand* is to pull itself up, so "as to place itself on a footing with the other thousands, upon an average estimation, several days before the Drawing of the Lottery is completed," merely for the sake of establishing clear consequences. It may pull itself up before or after that period; and this exertion it makes is to be carefully watched by the Insurer, who is to seize the fortunate moment when it recovers from its sluggish inaction. If the fact be granted, and the experience of many past Lotteries has proved so much, that a thousand in the Wheel, so predica-mented, recovers its level some days prior to the close of the Lottery, then  
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are the calculations which are now to follow founded in truth.

We are at length advanced to that period of the Drawing when one of the thousands has, instead of 500, 600 Numbers in the Wheel; and the twenty-first day's Drawing is about to commence. It is taken for granted that this thousand begins to pull itself up according to the premises laid down above.

Will it make itself equal to the average state of the Wheel in ten days? And what, in such a case, will be the gain to the Adventurer?

It has, as before explained, 600 Numbers in the Wheel, all to be drawn in 20 days; that is to say, at the ratio of 30 daily, instead of 25, the average number in the whole of the Lottery. But, having to pull itself up in ten days, instead of 30 Numbers daily during that space, it must *give out* 35, so as to leave in the Wheel, at the commencement of the thirty-first day's Drawing, its average number of 250 only.

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Now, supposing (which is against the fact established by the observation of preceding Lotteries) 30 Numbers only, now become the average amount on the thousand, were to be drawn during each of these ten days, the Adventurer would have, on either day, for his 100 pounds, the chance of an 100: nothing can be more clear than that this would be the case. But seeing that, according to the foregoing statement, 35 Numbers are on an average to be drawn daily during that space, we shall find, by resorting again to a rule-of-three question, that the event of each day's Drawing will, in the aggregate of the whole of the ten days, give him an advantage over the Underwriter of 16*l.* 13*s.* 4*d.* in his chance of gain.

In the above calculation, I have supposed the *strong* thousand thus selected to have lagged behind the others during the one-half of the Drawing of the Lottery; and have also supposed that it afterwards required the space of ten days (the one fourth of the Drawing) to  
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bring itself to the level of the other thousands collectively. The latter of these suppositions, the experience of past years has demonstrated to be very moderate, it having often occurred that such a strong thousand, after a backwardness at least tantamount to my statement, in point either of time or Numbers, has *given out* its adequate quantity of Numbers in a much smaller space of time. Whether it begins to *pull up* early or late, the chance of gain to the Adventurer will be in proportion to the celerity with which it forces itself onwards to the goal, and the ratio in point of Numbers in which it hung back while it was sluggish in its career.

But if, instead of ten days, this thousand requires eleven to make itself equal to the average state of the Wheel, what will then be the Adventurer's chance of gain?

Certainly not so great as the one the former supposition granted. During the Drawing of these 11 days, his average chance of gain will be 14 pounds and a small fraction only upon his stake of

an 100; and this chance will still diminish in proportion as the thousand struggles longer to gain its level, inasmuch, that if it should not entirely have accomplished this aim at the commencement of the last day's Drawing, the chance of gain to the Adventurer on that day will be just as small as was the chance of loss on the first day's Drawing, when, as I have already explained, this thousand lagged at a given ratio behind the others.

But this is a case rarely, if at all, to be expected. I believe I may say, that it has been without variation observed in every Lottery, (I allude here to those drawn on plans peculiar to themselves in Great Britain and Ireland), that at the termination of about one third of the Drawing, a very essential difference has been found in the state of the Numbers in the Wheel belonging to the different thousands, some of which have pulled up in an augmented ratio, while others have lagged proportionately; and that this great diversity in the strength of the relative

five thousands has ceased to be apparent at the period when the Lottery has been about two thirds drawn. Between these two stages, therefore, the best time for successful adventure seems to present itself, however it may be that the chance of the Wheel may somewhat accelerate or protract the period either of entering on or desisting from adventures.

But a thousand, it may be asked, although the strongest on the 20th day, may not be so on the 24th or 25th?— This must be granted; and accordingly it ought instantly to be abandoned by the Insurer whenever a better presents itself to his view. It has been the obstinate folly of many, to persevere in staking on a particular Number, because a certain loss has already been incurred in following it up, when a more promising one might have been resorted to; and the impolicy of such a pertinacity of conduct applies still more strongly to the present case, in which a particular thousand made choice of for its strength out to be abandoned the moment

ment it yields to a more powerful adversary.

If, in staking on one or on several Numbers, two thousands which have equally the advantage-ground should present themselves, I should certainly prefer the one in the vicinity of which the weakest thousands (those the most overdrawn) were to be found. And in selecting my Number or Numbers in the thousand made choice of, I should as certainly go to that part where the fewest spaces in the Lottery Book or Table were filled up.

This consideration leads me to another upon the respective hundreds in the thousand the strength of which may have determined my choice. To these all the foregoing calculations and results will apply: at a certain period of the Drawing they will present a great disparity, and at another certain period this disparity will almost entirely disappear. That between these periods the advantage to the Adventurer lies on the side of some one or more of them over the others, is most obvious;

vious; and I would carry my inquiry even to the respective tens of the strongest hundred of the strongest thousand.

In all I have advanced thus far, I have supposed that the Insurer has it in his power to inspect a Lottery Book at his leisure each day after the Drawing, or to form estimates by Brewman's List, or otherwise, of the strength of the respective thousands. Of the strongest of these he should form a Table, so as to be able to notice when it begins to *pull up*, where he can stake on one Number or several with a promise of most advantage, and when this thousand ought to be deserted, because it has yielded, in point of strength, to another, with which he is now to follow up the same plan. It will be easy to reckon up, in the Lottery List or Book, the amount of the Numbers drawn daily in each thousand, summing up the different totals each day in a comparative Table, which will thus shew the relative strength of the respective thousands after each day's Drawing. If it should be urged, that Brewman's List of the day's Drawing  
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is not to be obtained till the following morning, it will be easy to reply, that the only inconvenience which will result from such a delay to the Adventurer is, that the notice of the thousand he may have made choice of, on account of its strength, pulling itself up, will reach him a day later than it should do. That day will be, perhaps, better spent in inaction on his part than otherwise; and on the afternoon after this notice shall have been obtained by him, he may resort to an Office, where he will most probably find, by a cursory view of the thousand in question, that the ratio of its pulling up still favours his enterprize.

I come now to my second fact, which the experience of past Lotteries has established, namely, “ That, also at a certain period of the Drawing, a considerable chasm or blank space of undrawn Tickets will, in certain parts of the Office Book, or of Lottery Tables purposely made and filled up daily, be discoverable; and that this string of undrawn Numbers will suddenly

denly *pull itself up* in such a way, as that no such chasm or blank space in the Books or Tables shall be discoverable several days before the Drawing of the Lottery is completed."

It would be too laborious a task for any individual, to fill up daily, during the drawing of the Lottery, Tables of all the thousands, so as to select one or more out of all the chasms or blank spaces which would present themselves to his view, I will suppose, at the middle of the Drawing. And if he should recur to the Book of a Lottery-Office for information on this head, he would be rather apt to bewilder himself, than to come at a result with which he would be perfectly satisfied. I will therefore, as these chasms occur in a certain stage of the Drawing in each thousand, suppose him to make choice of the first, more especially as the strength or weakness of the thousand does not apply to this mode of adventure so forcibly as it does to the preceding one, in which the whole stress of the calculation is laid on it.

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It is not many years since the Writer of these Pages kept a Table, daily filled up, of the first thousand Numbers; the result was a very singular one indeed! At the close of the thirteenth day's Drawing, that is to say, when the Lottery was more than one-third drawn, a chasm or blank space of nearly 30 Numbers still presented itself. On the fourteenth day this string of Numbers began to *jump*; and with such a celerity on the seven or eight following days, that by this time there was scarcely a part of the thousand which did not present an equal proportion of void Ticket-spaces to be filled up in the course of the Drawing. Can it possibly be conceived, that at this stage of adventure, the advantage would not have been on the side of him who should have taken these Numbers, or a part of them, when they began to pull up, in preference to those undrawn ones which lay around them, on every side, more scattered and diffused? To the end that the Adventurer's chance should have been equal in either case, it was necessary

sary that this chasm or blank space of undrawn Numbers should have filled itself up slowly and progressively until the later stages of the Drawing. But here we find that the Numbers it contained made a forced *jet* forward, tantamount to the backwardness, or rather *immobility*, they had before manifested. It would be as easy to explain why they refused so long and so obstinately to present themselves to the *mouth* of the Wheel, as to account for the rapid change which in a very few days gave to some other Numbers in the thousand (the conclusiveness of this reasoning being granted) an advantage over this particular string.

We will return to that particular plan of a Lottery, and of Lottery adventure, on which, for the sake of even Numbers, I have made my calculations to repose.

I will suppose, then, this Lottery of 40,000 Tickets to be half drawn, at the rate of a thousand pulled up daily. I have made choice of the first thousand, a Table of which lies before me at this stage; and on consulting this Table, I

find a string of 20 connected undrawn Numbers, according to their natural order. Now, reckoning up those that have been drawn during the twenty days, I find the thousand to contain, of these drawn Numbers, its net proportion of 500. To the end that the above string of undrawn Numbers should keep pace, and no more, with the others, one of them only should, on an average, be drawn daily, for the Drawing has still 20 days to run. But at the close of the thirtieth day's Drawing, I find that 15 of these 20 Numbers have been thrown up; and the conclusion, which I think an infallible one, I draw from this fact, is, that my string of undrawn Numbers had, on the commencement of the twenty-first day, and till the close of the thirtieth, an average advantage over the other undrawn Numbers in the thousand, in the proportion of 3 to 2; or, to speak in still plainer terms, that they held out to the Adventurer an advantage of 50 per cent.

Can this fact be demonstrated by Numbers? I shall try. In the thousand,

as I have already said, there were 500 undrawn Numbers at the close of the twentieth day's Drawing. Of these, 480 belonged to the other parts of the thousand, 20 to the string. I shall first suppose myself embarked as an Adventurer at Hazard, and that on the twenty-first and twenty-second days I stake on a Number *out of the string*. As, during these two days, according to the premises I have laid down, three Numbers belonging to the string are on an average to be pulled up, the average number of 45 only can be drawn in the other parts of the thousand during that space; it is therefore as 480 to 45, or as 10 and two thirds to 1, against any Number being drawn.

But, instead of resorting to the other parts of the thousand, I make choice of a Number *within the string*, which is to give out three Numbers within the two days, on the average supposition that at the close of the thirtieth day's Drawing it is to contain 5 undrawn Numbers only. Here it is clear that the chance is against me

me as 20 to 3, or as 6 two thirds to 1 only. My supposition of the chance of a gain of 50 per cent to the Adventurer, on the latter speculation over the former, was, therefore, under the mark ; for, on reducing my fractions into decimals, and making a common rule-of-three calculation of the two chances, I find the latter to have an advantage of somewhat more than 60 per cent. over his adversary. Figures are the test of truth !

But my Reader, who has constantly been in the habit of supposing that the chance of one Number is as good as the chance of another, will, perhaps, ask me to explain, why the ordinary probabilities and expectation of chances should not apply equally to my string of undrawn Numbers as to the rest of the thousand, during the period of the Drawing at which I point out to him its advantages ? In such a case I shall demand of him, in return, an explanation why this string of Numbers, so contrarily to these probabilities and this expectation, as well as

to the usually observed falling out of chances, was entirely immoveable during the preceding 20 days of the Drawing? and why, granting this to have been the case, it may not make an impulse during the 10 succeeding ones as extraordinary as was its past immobility? The instance I have cited is not a solitary one: on the other hand, the observation of several Lotteries has afforded many results perfectly similar. If I were to hazard an explanation, I should say, that at the commencement and earlier stages of the Drawing, the cumbrous load of Tickets, pressing some on others, prevents that free circulation, and unfettered intercourse, which must be kept up and maintained among them, when, from their diminished bulk, they move with fewer impediments in a larger space. It is then, I should continue, that those which the most felt the resistance, press forward more in a body and collectively than the rest, until, at length, as the Drawing hastens towards a conclusion, this forced action of their's places the different parts of

of the Lottery Book, or Tables, on a pretty equal footing in point of Numbers drawn and Numbers undrawn.

But to proceed. I have supposed, for illustration's sake, that my string of undrawn Numbers begins to pull up on the twenty-first day's Drawing, the advantage of which day's adventure, as I could have no foreknowledge of such an effort, I have lost. Whether it has *given out* one, two, three or more Numbers, is no consideration with me: I stake upon it the following day, and persevere to do so, until a more advantageous series, to which I now resort, presents itself. In determining the period when I am to desist altogether, as well as the ratio by which I augment, each succeeding day, the stake on the Number or Numbers upon which I bet, I am guided by the policy and prudence that would direct me in the common mode of adventuring.

I have observed, that the strength or weakness of the thousand is comparatively but of little moment in following  
up.

up this plan ; because, at a certain period of the Drawing—the middle, for example—I should less expect to find a long string of undrawn Numbers in a thousand which had considerably overdrawn itself, than in one proportionably underdrawn. In the former, my chance of catching such a string, or series, at the time of its pulling up, has, according to a fair presumption, been earlier than in the latter. I shall, however, admit, that, at this stage of my supposed Lottery, a string of 20 Numbers is to be found in a strong thousand, containing 600 undrawn Numbers, and also in a weak one, containing 400 only ; and that each of these strings is to pull itself up on the twenty-first day. In this case, supposing each thousand to make itself equal to the average state of the Wheel at the close of the thirtieth day's Drawing, I find, that in the strong underdrawn one, there is a chance of 11 two-thirds Numbers belonging to the string being drawn in the ten days ;

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while, in the weak one, which is proportionably over-drawn, the chance is reduced to 7 one-half Numbers only. In the former instance, 350 Numbers are to be drawn within that period out of 600; in the latter, 150 only out of 400: upon this material difference the above chances are calculated.

But do these chances strictly apply to a long string or series of undrawn Numbers, which begins to fill at a certain period of the Drawing? I am inclined to think they do not; and on a general consideration, it would appear to me, that the value and advantage of such a series depend on the number, and perhaps arrangement, of the spaces filled up in the other parts of the thousand, at the time of its beginning to exert itself.

In the premises I have laid down, I have stated, that it ceases to be "discoverable several days before the Drawing of the Lottery is completed:" I am now to consider at what earlier part of the

the Drawing it is so marked and defined by the state of the drawn and undrawn Numbers which surround it, as to promise the advantages I hold out to my Adventurer on its beginning to fill.

During the first few days, it must be clear, from the smallness of the Numbers drawn, that there will be many long chasms in a thousand, a Table of which is kept, and daily filled up. Some of these will fill slowly, and others with more precipitancy; but I can have no dependance on any of them, until the Drawing is so far advanced as to make a series of undrawn Numbers very distinguishable from the smaller ones which surround it. It is then that I first notice it; and in proportion as it preserves itself entire for a still longer space, I calculate on my success in following it up. It may, in the event, yield in point of value to a smaller series, which may have kept itself in a suspended state until a certain advanced period of the Drawing, when it obtrudes

itself on my notice, and directs me to watch the struggle it means to make!

I have now brought myself to the third and last Fact on which my premises are built; and as it is not capable of any demonstrative calculations, which, supposing it granted, could estimate the precise advantages to be derived from it by the Adventurer, what I have to say upon it will be necessarily comprised within a very small limit. I have stated on this head, "that, generally speaking, Prizes fall two, three or more together; insomuch, that in the Books or Tables, when the Lottery is completed, a Prize with a Blank above and another below it, is seldom, comparatively speaking, to be found."

My Reader would, perhaps, not be quite satisfied, if I should simply tell him that this fact is established by a nice and attentive observation of the result of several Lotteries; and that, in making choice of the particular Numbers to  
which

which I lead him, if it should be admitted even that the falling of the Prizes and Blanks is altogether fortuitous, and not such as I describe it, he would incur no possible risk of loss. He has a view to a certain gain, and will at least require a promise of it before he embraces a novel mode of adventure. It is true, that by following up the plans I have already laid down, this promise is held out to him; but, now that I have again excited his curiosity, and fixed his attention, he needs something more.

He will recollect, that in setting out, I endeavoured to account for the facts I had to state, by arguments drawn from the nature of the paper billets, which, as well as the Numbers, contain the Blanks, and Prizes to be drawn; and from the mode of cutting these billets in *sets* into the Wheel. To these arguments I now refer him; and supposing him to have given them a diligent perusal, I ask him, whether it be not possible

possible that particular Prizes and particular Blanks, as well as particular Numbers, may so hang together, or keep themselves in a state of vicinage, as that the former (the Prizes and Blanks) and the latter, may be equally governed, in the issue of their being drawn, by a kind of law? I certainly cannot be persuaded, and that for the reasons I have before stated, that a complete dispersion and perfect admixture of the billets in either Wheel can take place; and if the facts noticed in preceding Lotteries can be thus explained, my end is answered, at the same time that the facts themselves warrant my conclusions.

In following up either of the preceding modes of adventuring, and combining it with the immediate one, it will be simply necessary for him to select one undrawn Number, or several lying contiguous to one or several Prizes drawn, and stake largely on *Prize only*, covering his adventure, if he chooses,  
by

by an adequate *Blank and Prize* stake.  
 I speak experimentally when I say, that  
 I have reason to think the event will  
 answer his most sanguine expectation.

F I N I S.

by an adequate blank and prize list.  
I speak experimentally when I say that  
I have reason to think the event will  
answer his most sanguine expectation.